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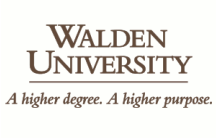

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Access to Care: Assessment of Barriers in Two Rural Iowa Communities

Jean M. Osgood
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Walden University

College of Health Sciences

This is to certify that the doctoral study by

Jean Osgood

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and that any and all revisions required by
the review committee have been made.

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Walden University
2017

Abstract

Access to Care: Assessment of Barriers in Two Rural Iowa Communities

by

Jean M. Osgood

MSN, University of Missouri-Columbia, 1994

BSN, University of Iowa, 1990

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2017

Abstract

The ability to access primary care services within the local community has a direct impact on the health and wellness of the community. Individuals living in rural settings face multiple challenges when attempting to access care. The purpose of this retrospective project was to identify barriers in 2 rural, underserved communities and make recommendations for process changes that could reduce these barriers. Data were gathered from 2 critical access hospitals and 2 rural health clinics located in rural, underserved areas in Iowa. Both hospitals identified access to health services as an issue within their communities. Administrative data were gathered on nonemergent use of the emergency department, which revealed peak use from 10 a.m. to 11 a.m., 12 p.m. to 1 p.m., and 4 p.m. to 5 p.m. Clinic data included patient demographics, staffing and scheduling patterns, and the number of patient visits. One site provided expanded hours, yet very little difference in the number visits to the emergency room for nonemergent care was identified. Both clinic sites reported the need for additional providers to meet the needs of their patients and provide more same-day appointments. Recommendations made to increase access were open scheduling, staggered staff schedules to increase appointments over peak demand times, and use of a dedicated case manager to improve communication and coordination of care. Increased use of technology would allow the provision of care outside the clinic setting, enhance care coordination, and promote patient participation in care. With increased knowledge regarding the barriers facing rural communities when accessing care, process changes can be implemented to reduce barriers. The overall goal is to improve health and wellness through increased access.

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Dedication

This paper is dedicated to my mother, who taught me how to be strong, independent, and persistent. I miss you and think of you daily.

Acknowledgments

Special thanks to Gloria Vermie, RN, who served as my preceptor at the Iowa Department of Public Health. She introduced me to an amazing group of individuals who are committed to improving the health and wellness of all Iowans. Her dedication to supporting and expanding health services to rural Iowans served as a source of inspiration and motivation to everyone she worked with.

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Section 1: Overview of the Evidence-Based Project

Introduction

Access to high-quality health care in the United States has been a national priority for over 20 years. In the early 1990s, during the Clinton administration, an attempt was made to pass the Clinton Health Security Act to provide universal health insurance coverage for all Americans, but the plan was defeated in Congress (Oberlander, 2007). The Institute of Medicine monitors access to health services and in 1993 published a report citing the issues Americans face in regard to access (Institute of Medicine, Committee on Monitoring Access to Personal Health Care Services, 1993). Inequality in access to quality health care remained a problem, and the significance of this was well documented in the Institute of Medicine (2001) report *Crossing the Quality Chasm*. The report addressed the importance of access to preventative monitoring of chronic health conditions and early intervention for acute illness to reduce the long-term effects of illness. The National Institute of Health supports and provides funding for ongoing health research on cancer, cardiovascular disease, diabetes as well as other chronic health conditions (U.S. Department of Health & Human Services, 2011).

The Healthy People initiative was started in 1979 based on the Surgeon General's report on health promotion and disease prevention, emphasizing the role of nutrition, exercise, environmental factors, and occupational safety in advancing health (U.S. Department of Health Human Services, 2012). This initiative set 10-year, science-based objectives for improving the health of all Americans. It identified specific determinants of health, which included access to quality health services. The Affordable Care Act

(ACA) was signed into legislation in 2010, legislating the implementation of several measures to improve health care in the United States. One of the goals of the ACA was to increase access to affordable care while improving the quality of health care and reducing health care cost. The focus was on preventative and well care, monitoring of chronic health conditions, and establishing patient-centered medical homes to improve care. One of the primary barriers identified to obtaining health insurance coverage was cost, and programs were put in place to alleviate this barrier (American Nurses Association, 2010; U.S. Department of Health and Human Services, 2012; Kaiser Family Foundation, 2013). The ACA has been in place since 2010 with full implementation of most programs in 2014. Despite this, there remains a significant percentage of the population that continues to lack access to quality health care in their local community. Millions of working men and women and nearly 1 in 13 children remained uninsured as of 2014 (Joint Economic Committee, 2014). Factors identified include cost, inadequate numbers of providers available to provide care, lack of transportation to appointments, limited appointment schedules, as well as social issues. Data from 2013 revealed that 18.5% of adults remained uninsured and that 28.4% had an income of less than $20,000 annually. Over half of the uninsured worked but did not earn enough to be able to purchase health insurance (Kaiser Family Foundation, 2014). The largest percentage of the working uninsured were Hispanic at were either self-employed or worked in agriculture or construction. Over 16% of those insured still reported not seeking medical care due to cost in the last year (Kaiser Family Foundation, 2014). The initial assumption that the ability to purchase low cost health insurance coverage would resolve the problem of

access to care for all Americans has proved to be a fallacy. There remain many uninsured people in the United States.

Problem Statement

Barriers to accessing care within rural communities result in failure to obtain needed health care and disproportionately impact people in northeastern Iowa who are older or who have lower income. Current research supported that the primary access to care barriers include the cost of health care and health insurance, availability of providers and services in the local community, transportation concerns, as well as work and family obligations that conflict with obtaining health care (Buzza et al., 2011; Jones et al., 2009, Kaiser Family Foundation, 2014; Syed, Gerber & Sharp, 2013; U.S. Department of Health and Human Services, 2012; Ziller, Lenardson & Coburn, 2011). Iowa, with its rural demographics and an elderly population that is higher than the national average, presents a significant challenge to accessing care in local communities.

Purpose Statement and Project Objectives

This purpose of this project was to identify barriers to accessing care specific to rural Iowans and make evidence-based recommendations that promote cost-effective, sustainable process changes to increase access. The project objectives were as follows: (a) ensure the target population can access a source for primary care within their community; (b) have health care providers within the community identify and implement at least one process change that would increase access to services; (c) complete a cost-benefit analysis of the proposed process change; and (d) disseminate finding to the stakeholders. The result of the project was identification and dissemination of cost-

effective, sustainable methods to increase access and improve the health and wellness of the community.

Relevance to Practice

The effect of the evidence-based practice (EBP) project on practice is to identify barriers to accessing care in rural and underserved areas and facilitate policy changes that reduce these barriers. Health organizations must reevaluate how primary care is delivered, focusing on the benefits of patient-centered homes in managing chronic health conditions and providing preventative care. Health care professionals who are sensitive to patient health care concerns and openly address these concerns will increase patient accountability and participation in decision-making. For workers who are unable to schedule clinic appointments due to work conflicts, the option of offering flexible clinic hours can improve access. The use of case managers to coordinate resources for older adults would help to increase compliance with follow-up appointments, resolve transportation issues, and coordinate home visits when the need is identified.

Barriers to accessing care lead to failure to receive preventative services, reducing the potential for early diagnosis and treatment. The end result is that individuals are sicker when diagnosed and require more extensive treatment. Patients with chronic health conditions can find it difficult complete follow-up visits and obtain the required monitoring of their conditions. This can lead to decompensation, additional complications, and the potential need for hospital admission (Majerol, Newkirk & Garfield, 2014; Rural Health Reform Policy Research Center, 2014; Ward et al., 2015). Utilization of emergency departments (ED) for nonemergent conditions has been well

documented (DeVoe et al., 2007; Janke et al., 2015; Kaiser Family Foundation, 2016; Majerol et al., 2015; Rust et al., 2008; Sarver, Cydulka, & Baker, 2002; Weiss, Wier, Stocks, & Blanchard, 2014; Yaremchuk, Schwartz, & Nelson, 2007) and associated with the inability to obtain access to primary care clinics. The cost for nonemergent care through the ED is 2 to 3 times higher than clinic care and increases the risk of reduced continuity of care (Cha, 2014). The goal of patient-centered medical homes, to improve the quality of care and health and wellness of communities, can only be achieved if there is access to primary care services that meets the patient's needs (Cha, 2014; Nyweide et al., 2013; Robert Wood Johnson Foundation, 2013; Weiner et al., 2013).

The ability to deliver patient-centered, high quality, cost-effective health care is of interest to stakeholders and end users of these services. Increased regulatory guidelines are a reality in health care systems of today. The shift from reimbursement for quantity of care to quality of care provided will have an impact on the financial viability of providers of health services (U.S. Department of Health & Human Services, 2015). Patients are expected to participate in self-care activities and be responsible for managing their health. With the increased cost of health insurance, larger copays, and reduced hospital stays, patients need to become knowledgeable consumers of health services. The goal is to deliver better care while spending health care dollars wisely, resulting in healthier people.

Evidence-Based Significance of the Project

Evidence has supported that the inability to obtain high quality, cost-effect care is multifactorial (Agency for Healthcare Research and Quality, 2015; Healthy People 2020, 2014; Knudson & Meit, 2015; MacKinney et al., 2014). Lack of or inadequate health

insurance coverage due to socioeconomic status, geographical isolation, reduced numbers of primary care providers in local communities, and lack of transportation for older or low income individuals are just a few of the issues impacting access to care. Factors known to affect people's health include genetics, behavior, social circumstances, environmental and physical influences, and medical care (Institute of Medicine, 2015; McGovern, Miller & Hughes-Cromwick, 2014). A report by the Institute of Medicine in 2001 identified the need for safe, effective, patient-centered, timely, efficient, and equitable care for all Americans. Efforts to redesign the nation's health care system must ensure that the new system is responsive at all times, and access to care should be provided wherever patients need it and in a variety of forms. Access is critical to improve health, increase longevity, reduce pain and suffering, and increase personal productivity.

The goal of the evidence-based practice (EBP) project was to identify population-specific barriers and develop interventions that would increase access to the primary care services provided in the clinics. The desired outcomes to the process changes that are recommended would be an increased number of preventative care visits, decreased number of cancelled appointments, increased participation in follow-up care, reduction in the number of nonemergent emergency room visits, and reduction in hospitalizations for exacerbation of chronic health conditions. Several strategies can be used to address these barriers. The first is to clearly articulate to all of the stakeholders why the change is needed and solicit input from them on the issue. It is essential to provide evidence that supports the need for the change and the benefits to the organization and the community. By developing common goals and objectives, the change process becomes a shared

improvement process with ownership by all of the stakeholders, which increases the probability that the change will be sustained.

Implications for Social Change

The change project has the potential to impact the access to care in rural and underserved areas of northeastern Iowa. By identifying cost-effective, sustainable interventions such as modifying the standard clinic hours, alternative scheduling patterns and staggered staffing, patients can be seen and treated by their primary care provider. Care provided within the patient's medical home provides continuity of care, improves quality, facilitates the delivery of appropriate care that considers the patients underlying medical conditions, and can potentially reduce cost (Nyweide et al., 2013). The average work commute in rural Iowa is 30 minutes to a larger community (Robert Wood Johnson Foundation, 2016). To receive preventative care, to follow up on chronic health conditions, or to be seen for an acute illness requires time away from work, which can be an economic burden to both the patient and employer. Elderly patients who are no longer able to drive rely on family and friends to transport them to appointments because public transportation is often not available in small rural communities (Iowa Department of Transportation & Iowa Department of Public Health, 2012). The exacerbation of chronic health conditions may require transport to local EDs for evaluation. Elderly individuals who do not drive often rely on the local ambulance service for transport. In many of these cases, the situation could have been managed in the primary care setting (Cha, 2014; Nyweide et al., 2013; Weiss et al., 2014). The cost of ED care is 3 to 4 times higher than

if seen and treated in the clinic, resulting in increased expense to the patient and adding to the escalating cost of health care in general (Cha, 2014; Fay, n.d.).

The ability to identify health problems early and intervene has the potential to have a significant economic impact. By obtaining early treatment or regular follow-up care, illness can be managed early, reducing the severity and prolonged absence from work as well as potential hospitalization. Process changes that reduce the need to take time off work for appointments or seek care through the ED can reduce the financial burden of individuals seeking care. The cost of nonurgent care to treat an acute illness such as strep throat in the emergency room can be up to $531, while clinic care is closer to $111 (Fay, n.d.). Individuals without health insurance pay more out of pocket for services provided to individuals with insurance due to reduced cost agreements with insurance companies. The uninsured often pay 2 to 4 times more for services than public programs or insurance companies (Majerol et al., 2014), resulting in greater economic stress on low income families. In an attempt to reduce the cost of health insurance, individuals purchase plans with higher deductibles. A report for the Commonwealth Fund (Collins, Rasmussen, Beutel, & Doty, 2015) documented that the number of continuously insured adults with high deductibles tripled from 2003 to 2014. Over half of underinsured reported problems with medical debt and 2 of 5 reported not getting needed medical care due to cost (Collins et al., 2015; Ziller et al., 2015). Of those with medical debt, 41% carried a debt of $4,000 or more (Collins et al., 2015). As of December 2014, it was estimated that 31 million people ages 19 to 64 were underinsured (Collins et al., 2015). In Iowa, an estimated 293,442 (11%) were underinsured (Cohen, Martinez, & Zammitti,

2016; Schoen, Hayes, Collins, Lippa, & Radley, 2014). Health care expenses greater than 10% of family income are considered a financial burden, and in 2013 17.3% of people under age 65 met this criterion (Agency for Healthcare Research and Quality, 2016c).

Assumptions and Limitation

The assumption the project was based on was that individuals would prefer to see their primary care provider and, if appointments were made available, they would participate in preventative and follow-up care. There are potential macro- and microsystems issues that could inhibit implementation of the recommended process change. On a macrolevel, the community hospital could lose revenue from a reduction in the number of nonemergent ED visits. In this tight fiscal environment, small rural hospitals are constantly looking at ways to increase their bottom line. Reimbursement for these diagnosis codes is low and the additional staff required to provide services may result in a net loss for the visit. As insurance providers continue to monitor claims for appropriate use of services, the reimbursement for these nonemergent ED visit has the potential to be reduced even more. There is also the question of the need to expand lab and x-ray hours at the hospital to accommodate the expanded clinic hours. This would provide an opportunity for additional revenue for the organization, particularly if the technicians are already on site. The health system in general allows the clinics to make modification in the schedule if there are no increased expenses associated with the change. A written request for the change in hours would need to be submitted with data supporting the need.

Organizations have contracts with the communities they serve to provide needed health services. Based on the most recent community health needs assessment (CHNA), access to care was identified as a need. Input for the assessment was obtained from key stakeholders to accurately identify needs specific to the community. On a microlevel, staffing in small rural health clinics (RHC) is normally only one or two providers with appropriate support staff. If there is only one provider on site, the clinic would need to be willing to look at patient visit trends and delay scheduling appointments until later to allow the clinic to schedule evening or Saturday morning appointments. The support staff would need to agree to the altered work schedule to screen patients and perform routine tests. Implementation of the EBP project issue will improve quality and patient safety. The importance of patient-centered medical homes and access to primary care providers cannot be overemphasized. The practice guideline is based on the accountable care organization regulations outlined in the ACA. The purpose is to coordinate patient care and meet specific quality measures. These measures address the patient experience, care coordination, patient safety, preventative health and care of at-risk populations, and increases provider responsibility to meet the health care needs of their assigned population (Gold, 2014; Ward, Clarke, Freeman, & Schiller, 2015; Weiner et al., 2013). The ability to access their medical home is critical to the provision of patient-centered care.

Definition of Terms

Access: The timely use of personal health services to achieve the best health outcomes (Institute of Medicine, Committee on Monitoring Access to Personal Health Care Services, 1993).

Critical access hospital: A hospital that is certified through the Centers for Medicare and Medicaid Services that is more than 35 miles from any other hospital and provides 24-hour, 7-days-a-week emergency services.

Health professional shortage area: An area that has less than the 1: 3,500 physician-to-population ratio. This ratio is adjusted downward for areas that have a higher incidence of older or low income individuals in the population.

International classification of disease code: An alphanumeric designation given to every health diagnosis.

Medically underserved: A designation based on the ratio of primary care physicians, infant mortality rates, percent of the population with incomes below the poverty level, and percent of the population 65 years of age or older.

Patient-centered medical home: A primary care model that delivers comprehensive, patient-centered, coordinated care that is high quality, safe, and accessible throughout a patient's lifetime.

Primary care provider: Health care practitioner who provides preventative care and health education, identification and treatment of common medical conditions, makes referrals to specialists as needed, and coordinates patient care

Rural: Census tracts with a population density less than 2,500.

Stakeholder: A person or group of people who are invested in improving patient care and the health of the community.

Section 2: Review of Scholarly Evidence

Literature Review

In 1990, the Department of Health and Human Services released its Healthy People initiative, a strategy for improving the health of Americans (Healthy People 2020, 2016a). The focus of the program was then and has remained health promotion, health protection, and preventative services. The ability to access preventative care remains a priority and is one of the initiative's leading health indicators. The importance of preventative care has been well documented (Agency for Healthcare Research and Quality, 2015a; Healthy People 2020, 2014; Robert Wood Johnson Foundation, 2014), but the landmark report by the Institute of Medicine (2001) *Crossing the Quality Chasm* brought to the public's attention an array of system failures in the U.S. health care system. The belief is that safe, effective, patient-centered, timely, efficient, and equitable health care was a right of all Americans. The report emphasized that a full array of services needed to be provided, from preventative care to acute care to chronic disease management. The importance of access to affordable, quality health care for all citizens of the United States remains an issue today.

The science supporting the importance of access to care is ongoing with funding of past and current studies through grants and programs within the federal government. The Agency for Healthcare Research and Quality is an agency within the U.S. Department of Health and Human Services that has been reporting to Congress annually since 2003 on the status of health care quality and disparities in the nation (Agency for Healthcare Research and Quality, 2015a). Access to care is one of the 10 quality

indicators reported in this document and is based on over 250 measures of health services in a variety of settings. To obtain high-quality care, individuals must first gain entry into the health care system. This includes having health insurance, a usual source of care, the ability to seek and obtain care when a need is identified, and a supporting infrastructure (Agency for Healthcare Research and Quality, 2016a). Americans experience variable access to care based on race, ethnicity, socioeconomic status, age, sex, disability status, sexual orientation, and place of residence (Agency for Healthcare Quality and Research, 2015a; Conklin, 2002; Fox & Shaw, 2014; Iowa Prevention of Disabilities Policy Council, 2013). An individual's socioeconomic status is considered a key indicator of their ability to obtain health care services. Minority and low income individuals are at greater risk to delay seeking care due to cost and limited knowledge on the recourses available to them (Agency for Healthcare Research and Quality, 2016a: Joint Economic Committee, 2014; Kaiser Family Foundation, 2014). Children with only Medicaid or Children's Health Insurance Program coverage were less likely to get care as soon as wanted compared with children with any private insurance, and adults ages 18 to 64 who were uninsured or had only Medicaid coverage were less likely to get care as soon as wanted compared with adults with any private insurance (Agency for Healthcare Quality and Research, 2015a). The presence of these barriers can result in failure to obtain necessary health care, which leads to exacerbation of chronic health conditions and lack of preventative care with potential long-term health consequences.

For the working middle class who have health insurance coverage, work and family obligations can be barriers to accessing care. Weiss et al. (2014) sited data from

the 2011 Healthcare Cost and Utilization Project supporting that ED visits may provide the only available source of care for individuals who cannot obtain care elsewhere. EDs were the site for hospital admissions for uninsured or publically insured patients, and rural areas had a higher rate of ED visits that did not result in hospital admission. An estimated 76% of ED visits by commercially insured patients are not emergencies and could have been treated effectively in an outpatient setting (Cha, 2014; Robert Wood Johnson Foundation, 2013).

The ability to access to primary care services locally promotes continuity of care, and patient-focused care is well documented (Bleser et al., 2014; Ferrante, Balasubramanian, Hudson & Crabtree, 2010; Grumbach & Grundy, 2010; Quinn et al., 2013; Shi et al., 2014). Individuals living in rural environments are at increased risk due to geographic isolation, poverty, an increased elderly population, and lack of resources in the local community. The inability of small communities to provide an array of preventative, acute, and chronic services leads to delayed diagnosis and increased severity of illness when care is finally sought out (Alfero et al., 2015). Patient-centered medical homes promote continuity of care, improved quality, and provide cost-effective, appropriate care based on the patients underlying medical conditions. This promotes increased use of preventative services, providing opportunity for early diagnosis and treatment and reduced mortality rates (Centers for Medicare & Medicaid Services, 2015; Healthy People 2020, 2014; Nyweide et al., 2013). Lack of access to a primary care provider leads to increased use of EDs for nonemergent care at a cost 3 to 4 times higher than a clinic visit (Robert Wood Johnson Foundation, 2013). Access to primary care

providers for follow up on chronic health conditions can reduce the risk for preventable hospitalizations and for missed diagnosis of serious health conditions (Christensen et al., 2013; Kaiser Family Foundation, 2016). The exacerbation of nonemergent chronic health conditions in older patients can also result in transport to the local ED, often by ambulance, for evaluation. Many times, the situation could have been managed in the primary care setting (Cha, 2014; Nyweide et al., 2013; Weiss et al., 2014).

Iowa, with its large elderly population and rural demographic, faces unique challenges in providing high quality, cost-effective health care within local communities. Data from the U.S. Census Bureau (2014) revealed that 15.6% of Iowans were 65 years of age or older and that 41% of the state was classified as rural. Seniors living in a rural setting face unique challenges when accessing care. Lack of formal transportations systems and loss of ability to drive impair senior citizens' ability to get to appointments and go for testing. Visits to primary care providers and specialists can be even more challenging when these services are not available in their community. Distance required to travel to access health care has been identified as an important barrier (Bacsu et al., 2012; Buzza et al., 2011; Syed et al., 2013).

Economic barriers are more prevalent in rural areas due to limited economic opportunities, higher insurance rates, and lower incomes. Rural populations are in poor or fair health when compared to urban populations and have a higher prevalence of chronic health conditions associated with advanced age (Alfero et al., 2014). In the most recent community health needs assessment completed by the Iowa Department of Public Health (as cited in O'Brien, 2011), lack of transportation was the most prevalent need identified

in the state. This was often linked to the lack of providers in an area and the distance vulnerable populations were forced to travel due to the shortage. Visits to primary care providers and specialists can be even more challenging when services are not available in their community (Bacsu et al., 2012). Access to primary care services in the local community would help to reduce this gap in health care services in rural Iowa.

The National Advisory Committee on Rural Health and Human Services (2010) reported that only 10% of physicians practice in rural settings with 25% of the population located in this area. Iowa has 43% of its population living in rural areas, and 66 of its 99 counties are health professional shortage areas (Iowa Department of Public Health, 2013). Accessing a specialist is even more of a challenge with only 40 per 100,000. Older individuals experience multiple health problems resulting in complex health care needs. This lack of specialty services places more emphasis on the need for continuity of care with their primary care provider. The emergence of information technology and telemedicine has promise for increasing access to care in rural areas. The ability to share patient information with specialists from a remote location can potentially reduce the burden of disease through early intervention and treatment. Establishing chronic disease self-management programs in rural areas can initiate positive behavior changes, including lifestyle changes as well as increased monitoring of chronic health conditions with earlier reporting of changes (Harvey & Janke, 2014). Unfortunately, before patients can benefit from this new technology, they must be able to access their primary care provider.

The Institute of Medicine (2001) report identified the need for safe, effective, patient-centered, timely, efficient, and equitable care for all Americans. Efforts to

redesign the nation's health care system must ensure that the new system is responsive always, and access to care should be provided wherever patients need it and in a variety of forms. Access is critical to improve health, increase longevity, reduce pain and suffering, and increase personal productivity. The goal of this project is to identify barriers specific to rural communities and provide evidence-based recommendations for process changes that can reduce barriers.

Conceptual Model/Theoretical Framework

The theoretical model that provided support for the project is Rogers's (1983) diffusion of innovation theory. This theory evaluates the potential for change based on relative advantage, compatibility, complexity, trial ability, and observability (De Civita & Dasgupta, 2007; Sales, Smith, Curran, & Kochevar, 2006; Sanson-Fisher, 2004). As a stage theory, it explains how organizations implement new goals, programs, technologies, and ideas (Hodges & Videto, 2011; Rogers, 1983). The goal of this project is to identify barriers to accessing care in the local community and develop strategies to reduce these barriers. Accomplishing this goal requires a commitment from the organization, and to obtain this, it is essential to clearly articulate the benefits of the recommended process changes to all stakeholders. Rogers's diffusion of innovation theory provides a platform to accomplish this.

The stages identified in this theory are problem definition, initiation of action, implementation, and institutionalization (Rogers, 1983). Problem definition begins with recognition of a need or a social issue that is perceived as a high priority. Though the review of prior research and the gathering of new information, the problem is clearly

defined and potential corrective actions identified. The actions must align with the mission of the organization and be perceived as more beneficial than the current process for successful initiation. Implementation requires a commitment from all members of the organization to the behavior change as it is put into practice. Ongoing assessment and evaluation of the effectiveness of the process change is initiated in the implementation stage but is ongoing. Recommendations for modifications are made when the desired outcomes are not achieved. This stage may continue for a lengthy period and ends when the innovation becomes institutionalized as part of ongoing operations.

It is essential that the proposed innovation be perceived as better than the idea it supersedes, compatible with existing values, past experiences, and the needs of potential adopters, simple to understand and use, may be trialed and modified, and have results that are visible to others (Sanson-Fisher, 2004). Diffusion of innovations theory provides a process to get new ideas adopted even when the change is perceived to be difficult (Rogers, 1983). By seeking input from key stakeholders, identification of potential benefits of the change and presenting recommendations that can be implemented one at a time, there is increased potential for implementation. Successful implementation of one of the recommendations supports adoption of future process changes. Multiple barriers to accessing care have been identified. Implementing a process change that addresses even one of these barriers has the potential to increase patient access to care.

Section 3: Approach

Project Design/Method

The project design was based on its purpose, which was to identify barriers to accessing care in rural and underserved populations in northeast Iowa. The goal was to identify cost-effective, sustainable process changes that increase access to primary care services within the local community.

The method utilized to achieve the project goals and objectives was a retrospective review of existing data associated with access to care barriers and interviews with key stakeholders. The specific data gathered was based on previous studies that identified the most common barriers as lack of health insurance, inadequate number of health care providers, geographic isolation, lack of transportation, and cultural issues (MacKinney et al., 2014). The sites selected were based on convenience and willingness to participate. Sites contacted were located in rural, underserved areas. Sites were identified as Site A or Site B based on geographic location within the state. Data were gathered on ED Level 1 and Level 2 and primary care clinic patient visits for a 3-month time frame. Data gathered included patient age, date and time of visit, type of health insurance, number of active patients, and the number of missed, rescheduled, or no-show clinic visits. Clinic staff provided input on perceived barriers patients encounter when attempting to access clinic services by completing an investigator developed questionnaire. Data analysis was accomplished through analysis of patterns and trends in nonemergent ED use, clinic patient demographics, and staffing and scheduling patterns. The questionnaire specifically addressed the use of processes identified in the literature

that increase access to primary care services. The data gathered were critically reviewed to identify which factors were more prevalent in the target population. The initial findings were reviewed with the rural health clinic staff and additional feedback obtained as well as input on how these barriers could be addressed.

Identification of local sources of primary care and the ability to access that care was accomplished through review of the community health needs assessment completed by the critical access hospitals (CAH), meeting with representatives from the hospital, local RHCs, public health nurses, the local boards of health, and emergency medical services. Input from these resources served to narrow the barriers that had been identified to ones that had the greatest impact on rural access. A plan with potential process changes was then developed that specifically addressed these barriers. A cost-benefit analysis was completed based on clinic patient demographics and staffing, ED utilization, and the potential to increase the number of patients seen in the clinic resulting in greater revenue generation. A summary report of the project was completed and a process identified to share the findings with the individuals and organizations that participated. Actualization of the project goal is dependent on implementation of the project recommendations within the local communities and the results being shared with other health organizations

As the project developer, I completed the following steps:

1. Identification of potential participants based on geographic location and designation as a health professional shortage area
2. Initial contact regarding the project through e-mail or written correspondence to key stakeholders

3. Follow-up phone contact and scheduling a face-to-face meeting with those willing to participate
4. Follow-up letter or e-mail with specific data to be collected and when the data are due
5. Initial review of data and follow-up meetings with RHCs
6. Final report written with specific recommendations
7. Dissemination of the findings

Multiple stakeholders were identified to provide input and participate in the project. Each brought a unique set of ideas regarding the unmet health needs in the community. Community hospitals serve as the core or center of health care within the community. They often provide care to individuals who are unable to access care through a primary care clinic through their emergency departments. This results in the utilization of emergency resources for nonemergent conditions. RHCs provide direct care to the diverse population within the community and their input helped identify barriers to accessing clinic services. Members of the county board of health are from diverse backgrounds. Community members are appointed to this board to provide input on the health needs of members of the community. The role of the public health department within the community is well established. Their focus on promoting health and wellness in the community provides them opportunities to interact with individuals of all ages in a variety of settings. Each of these stakeholders provided input into the community health needs assessment that was completed.

Each of these groups or organizations have a role in monitoring the health of the community but approach it from different perspectives. They share a common interest in the delivery of health care to members of the community. One strategy used to facilitate their involvement was to focus on the CHNA completed by the hospitals and encourage input on how to meet these needs based on their perspective. This provided different approaches to addressing the needs and increased the potential for success of the project. A second strategy used was to focus on the benefits of the project at meeting the goals and objectives of the groups or organizations. Each has a mission directly related to improving the health and wellness of the population they serve, and increasing access to care supports this.

Population and Sampling

The population selected for the project was in two counties in northeast Iowa. The two counties selected were designated health professional shortage areas with a CAH and nationally certified RHCs. Both counties were predominately rural with an average of 30.75 persons per square mile. Iowa's average is 54.5 while the U.S. average is 87.4 persons per square mile (Centers for Disease Control and Prevention, 2016)). In the selected counties, individuals 65 years of age or older made up 16% and 19.6% of the population. The state average is 15.6% while the U.S. average is 14.1% (Centers for Disease Control and Prevention, 2016). County poverty levels were 9.9% and 7.0% compared to 12.4% for the state and 15.4% nationally. Both counties had volunteer emergency medical services and were approximately 25 miles from the nearest tertiary care facility. County CAHs serve as the center of community health services providing

inpatient care, specialty care, surgical services, diagnostic services, therapy, and programs on health and wellness. Based on this, I felt the CAH was the appropriate starting point for the project. Figure 1 provides a visual representation of the relationship between the hospital and other health services in the community

Figure 1. Community health care services.

Data Collection

Data collection began with review of the CHNA completed by each of the CAHs. The assessment is completed every 3 years to meet the requirements of the ACA and the Internal Revenue Service for nonprofit hospitals. It is a compilation of the most recent local, state, and national data and input from representative stakeholders across the county. Data were gathered from the U.S. Census Bureau, the Centers for Disease Control and Prevention, Iowa Work Force Development, Iowa Hospital Association, county public health department, the U.S. Department of Health and Human Services–

Community Health Status Indicators, county economic development commission, and Iowa Health Fact Book. Data gathered included longevity, quality of life indicators, health behaviors, access to clinical care, and social and economic factors. Additional data were gathered from hospital billing records on nonemergent ED visits, timing of visits, patient age, diagnosis, and type of insurance. No data were collected that contained any patient identifiers. Clinics identified as having patients who are high volume users of ED services were identified by the CAHs and contacted to participate in the project. Issues that were addressed with the clinics included the number of active patients, age range of the active patients, type of insurance, number of patient visits for the designated period, clinic scheduling pattern, and cancelled or missed appointments. Data were gathered from the clinic electronic billing and coding database. Input from clinic staff was obtained through an anonymous questionnaire that specifically addressed known barriers to accessing care and provided an opportunity for additional comments (Appendix A).

An introductory e-mail was sent to four previously identified critical access hospitals to determine their willingness to participate in the project. For those who responded that they are interested in participating, a meeting was set up to discuss the project. The points covered included the project purpose, the role of the hospital, and the goal of building on the partnership between the CAH and RHCs. Individuals who have been active in health care planning within the community were identified. Their input was well documented in the community health needs assessment and additional information was not elicited. The clinics that had been identified were sent an introductory letter with phone follow up. For those that agreed to participate, meetings

were scheduled and the purpose of the project, type of data needed, potential benefit to the community, and the clinic were discussed. The meetings also provided an opportunity to answer specific questions regarding the project.

A potential challenge to accurate data collection was identified due to working with different sites and the potential use of different databases for documenting patient visits. Three of the four sites used the same program for tracking patient encounters, and the fourth site used a comparable program. Each site had transitioned to using the ICD-10 coding manual for coding patient encounters. With the increased specificity in the revised manual, the potential for variation in coding was reduced. In the clinic setting, documentation of cancelled or missed visits was through color coding. Missed appointments were indicated in red and cancelled or rescheduled in yellow. The clinic administers reported inconsistent documentation in the medical record regarding the reason for cancelled, rescheduled, or missed appointments. Due to this, only the number of cancelled, rescheduled, or missed appointments was gathered. Coding of visits both in the ED and clinics were bundled or only the presenting complaint documented. This could result in an incomplete picture of the reason for the visit and limit the ability to capture the complex health care needs of the population.

Retrospective data from December 1, 2014 through February 28, 2015 were gathered from the hospitals and clinics. The initial request was for 6 months of data. This was reduced to 3 months for consistency when one of the clinics was able to only provide 3 months of data. The data were transferred to a spreadsheet for analysis with Site A and Site B on separate sheets. An initial review of the data was completed and a follow-up

meeting scheduled with RHC staff to discuss initial findings. These findings included patterns of ED use for nonemergent care and the age of the individual being seen, clinic patient demographics, and staffing patterns. Additional input though an anonymous, voluntary questionnaire was presented at this visit to obtain staff input on perceived barriers patients face when attempting to access care in the clinic. Further analysis of the data collected was completed and compared to national quality indicators. These indicators address the need for patient-centered medical homes, the importance of continuity of care and follow-up care, and the ability to schedule appointments based on the patients need. A summary report (Section 5) will be provided to those participating in the project with an opportunity to schedule a follow-up visit to discuss the findings. The report will highlight potential cost savings, benefits to organizations, compliance with state and federal regulations, and potential to improve the health of the community. A PowerPoint presentation (Appendix B) was presented to the Iowa Department of Public Health, Division of Oral and Health Services, the Iowa Rural Health Association Board, the Iowa Rural Health and Primary Care Advisory Committee, and the Iowa Rural Clinics Association.

Project Evaluation Plan

The goal of the project was to identify barriers to accessing care in the target population. The project identified three specific barriers to accessing care in rural communities. These barriers included lack of same-day appointments, inadequate number of providers to meet the needs of the patient population, and limited case management. Potential process changes include open access scheduling, modified staff scheduling to

provide additional appointments during peak ED use periods, and use of a dedicated case manager as ways to reduce barriers. The recommendations made were cost-effective, sustainable, and mutually beneficial to providers of the health services and the target population. The need for the process change was supported by comparing national data to local data on specific access indicators. Dissemination of the findings is key to motivating change, and the findings were shared with key stakeholders, participants, and groups who had a vested interest in the health and wellness of rural Iowans.

Summary

The program design was a retrospective review of data gathered from CAHs and RHCs that aided in the identification of primary barriers to accessing care within the target population. Specific stakeholders were identified to provide input and participate in the project. Each brought a unique set of ideas regarding the unmet health needs in the community. Each of the groups or organizations plays a role in monitoring the health of the community but approach it from a different perspective. They share a common interest in the delivery of health care to members of the community. As a family nurse practitioner who has practiced in rural and underserved areas, I have treated patients who have experienced difficulty accessing care. This can result in long-term health problems associated with failure to obtain preventative care and management of chronic health conditions. Based on my experience, I selected this project as a way to increase nursing knowledge regarding barriers specific to rural populations. Data were gathered from two counties in northeast Iowa that are designated health professional shortage areas with critical access hospitals and federal or state certified rural health clinics. The data

collected were analyzed, summarized, and recommendations for process changes made. The final step in the study was dissemination of the findings and recommendations to the appropriate individuals and organizations. The goal was that the findings provide the impetus for implementation of one or more of the identified interventions as well as stimulates further studies on the topic.

Section 4: Findings, Discussion, and Implications

Introduction

The ability to access primary care services within the local community has a significant impact on the health and wellness of individuals and communities. Those who live in rural communities face multiple barriers when attempting to access these services. The purpose of this study was to identify barriers unique to rural communities and make evidence-based recommendations that promote cost-effective, sustainable process changes that increase access to cares. Data were gathered from two CAHs and two RHCs in northeast Iowa on nonemergent ED use and clinic utilization. Patterns in nonemergent ED use and the availability of clinic appointments during these time periods were analyzed. Additional input from clinic staff was obtained through an anonymous, voluntary questionnaire. A final report was completed that summarized the findings and identified process changes to improve access. The recommended process changes were based on the findings, stakeholder input, and national standards. The primary goal was to improve access to care by reducing barriers.

Summary of Findings

The information gathered from the CHNAs revealed that both sites identified access to health care (providers, transportation, and insurance), chronic disease management (cardiovascular disease and diabetes), and disease prevention and wellness (obesity, tobacco, and alcohol) as unmet health care needs of their community. Access to care was further expanded addressing the need for both primary care providers and

specialist in the communities, means of transportation for older adults and insurance coverage for low to middle income individuals.

Analysis of nonemergent Level 1 and Level 2 ED visits for a 3-month period of time was completed. Data gathered included age of patient, diagnosis, and date and time of the visit. Patient age ranged from 5 months to 91 years old at Site A and 1 year to 90 years old at Site B. Site A had a total of 85 visits and Site B had 159. The most frequent visits at both sites were in the 2 to 10 age group (Table 1).

Table 1

ED Visits by Age

Age	0-1	2-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Site A	4	18	15	12	15	6	5	3	5	1	1
Site B	7	34	16	23	18	27	11	9	8	6	0

Insurance coverage breakdown for the ED visits was as follows: Site A had a total of 85 Level 1 and Level 2 visits. Private insurance was documented in 41 (48%) of the visits, state or federal coverage for 39 (46%), and self-pay for five (6%). State and federal coverage was further broken down to reveal 30 (77%) of the visits were Medicaid and nine (23%) were Medicare. Site B had a total of 159 Level 1 and Level 2 visits. Private insurance coverage was documented in 74 (46.5%) of the visits, state or federal coverage for 79 (49.6%), and self-pay accounted for six (3.7%). State and federal coverage was further broken down to reveal 47 (59%) of the visits were Medicaid and 32 (41%) were Medicare. Analysis of ED visits based on clinic hours (Figure 2) revealed that peak use was from 10 to 11 a.m., noon to 1 p.m., and 4 to 5 p.m. At Site A there were 25 ED visits during normal clinic hours, 29.4% of the total number of visits. Site B had 63 ED visits

during normal clinic hours, 39.6% of the total number of visits. Site B provided extended clinic hours Monday through Thursday until 7 p.m. Despite this, there continued to be higher levels of ED use from 4 to 6 p.m. In response to this, the local CAH recently opened a limited hour urgent care adjacent to their ED to address after hours care and reduce the number of nonemergent ED visits.

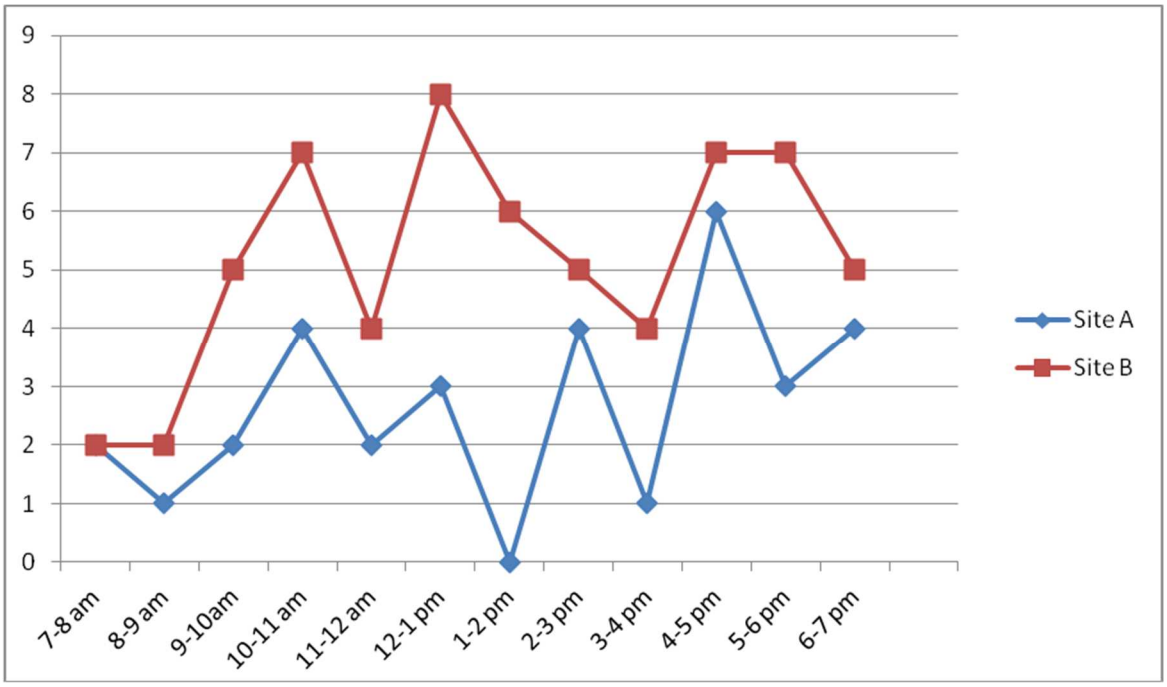

Figure 2. ED use during clinic hours.

Data from the rural health clinics documented a patient population of 65 years or older that was significantly greater than the national average (Figure 3). The U.S. Census Bureau (2014) reported a national average of 13%. Site A had 29% of the patient population age 65 or older and Site B 25%.

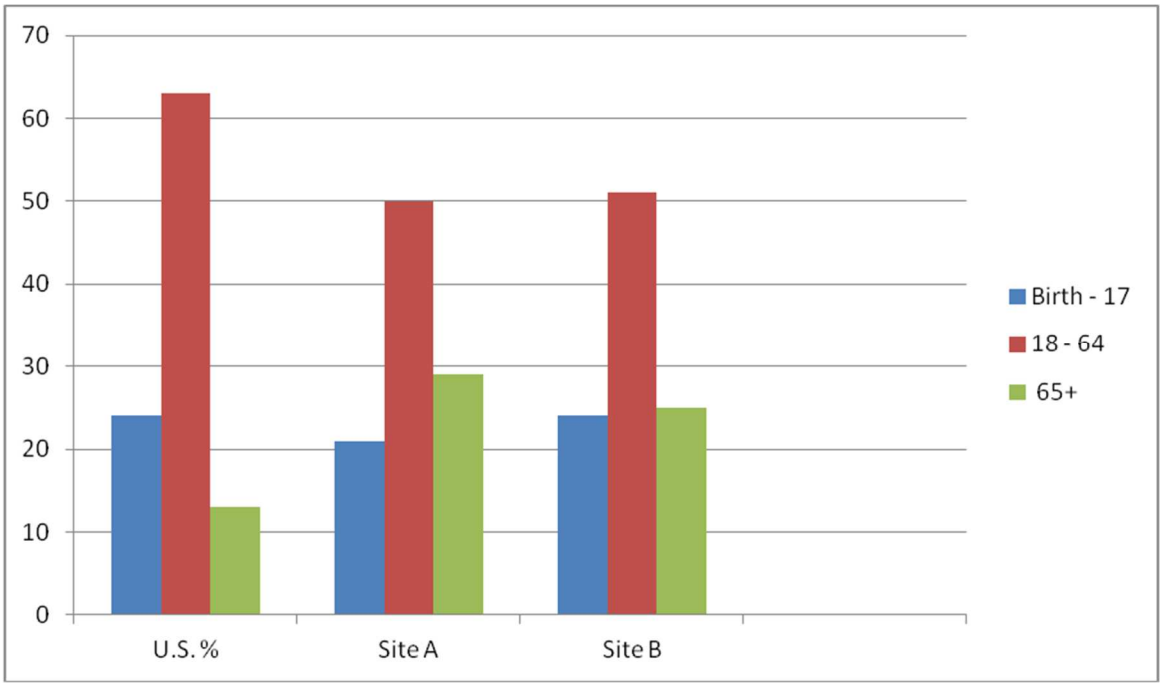

Figure 3. Clinic patient demographics.

Insurance coverage for Site A was 56% private, 43% state or federal, and 1% self-pay. Breakdown of the state or federal insurance was 24% and 76% consecutively. Site B had 49% private insurance, 45% state or federal, and 6% self-pay. The state or federal breakdown was 40% and 60%. Site A had a larger percentage of private pay insurance, while Site B had a greater number of self-pay patients.

Actual patient contact days for the time period data were collected was 62 days. The average number of patient visits per day for Site A was 45.6 and Site B 68.7. The sites were comparable based on active patients and workload when adjusted for clinic hours and the number of providers (Table 2).

Table 2

Clinic Data

RHC	Site A	Site
Active patients	1505	1964
Patient visits x 3 months	2828	4262
No-shows x 3 months	151(5%)	175(4%)
Hours per week	42	52
Average # of providers Per day (total # of providers)	2.5(3)	3.5(4)

The voluntary, anonymous Access to Care Questionnaire (Appendix A) was completed by 85% of the staff at Site A and 79% at Site B. All the clinic staff were invited to participate to obtain input from both clinical and nonclinical personnel. Both sites indicated that there was 24-hour, 7-days-a-week nurse triage available for their patients, but limited notification of the clinics when patients had called the triage line. Same-day appointments were available at both sites, but more were needed and they often filled up the day before. There was inconsistent clinic notification when patients went to urgent care or the emergency room, and there was a case management process in place to follow up on clinic no-shows. Specific barriers identified by staff to scheduling appointments included inadequate number of providers, the need for more same-day or acute minor visit appointments, and scheduling conflicts due to work and/or transportation. Additional comments addressed the need for patient education on what is urgent and needed to be seen right away, medication management, follow-up appointments, and care coordination.

Several key issues were identified in both clinics, with inadequate number of providers to serve the needs of the population as a primary concern. The increased

number of elderly patients with multiple health issues required more of the provider's time, resulting in reduced number of appointments available. Transportation issues were identified for both older adults and low income individuals, creating difficulty getting to appointments. Lack of public transportation in rural areas impacts older adults who no longer drive and low income families with limited transportation. Lack of consistent communication between triage, the ED, urgent care, and the clinic was felt to impede case management and coordination of care.

Site A had a traditional 8 a.m. to 5 p.m. Monday through Friday schedule with an additional 2 hours one evening a week. Appointments were scheduled for the evening hours, and if there were no appointments the provider did not stay. Site A also blocked a few same-day appointments but these were usually filled the day before with the approval of the provider. Nineteen (22%) of the Level 1 and Level 2 ED visits occurred during regular clinic hours. Site B provided expanded hours, yet over 39% of the nonemergent ED visits occurred during clinic hours. Each provider in the clinic had four same-day appointment slots each day but these were usually filled within the first couple hours of the day. Site B clinic patients over the age of 65 or disabled individuals had access to transportation through two nursing care facilities in the community. The service ran on donations and provided wheelchair accessible transportation from 9 a.m. to 4 p.m. Monday through Friday. This service was not available to over 78% of the ED patients due to the age restriction. In this community, expanded clinic hours and access to transportation did not appear to have a significant impact on nonemergent ED use. This

highlights that changes in the delivery of health services must be based on the needs of the community to be effective.

The ability to access primary care services in local communities has a financial impact on individuals, communities, industry, and the nation. Changes in reimbursement based on acuity level or need are part of the ACA legislation, which addressed the provision of care in the appropriate setting. In addition, the Deficit Reduction Act of 2005 allows insurance companies exercise their right to decline to pay for or reduce payment for services that are not provided in the appropriate clinical setting (Rosenbaum & Markus, 2006). The result is greater out-of-pocket expenses for patients and reduced reimbursement to hospitals when EDs are used for nonemergent care (Galewitz, 2012; Yaremchuk et al., 2007). Patient copays for ED visit range from $50 to $250 while an office visit copay range is $10 to $40. The average out-of-pocket expense to the patient would be $150 more when seen in the ED compared to a clinic visit. This results in greater financial burden to the patient or the hospital when patients are unable to pay. The cost of a problem-focused clinic visit averages $150 while a Level 1 or 2 ED visits can be over $400. The increased cost of care provided in the ED is paid for through higher costs for health insurance coverage, greater copays, and increased federal spending to supplement the cost of purchasing health insurance. By recapturing those nonemergent visits, there is the potential to increase clinic revenue by an estimated $12,000 per year at Site A and over $37,000 per year at Site B. The estimated combined reduction in annual health care expenditures would be over $45,000. When this number is multiplied by the number of EDs in the United States, the health care cost savings would be significant, all

based on the provision of care in the appropriate setting. Through increased access, patients can seek care for acute minor illnesses or chronic care follow up in a timely manner, reducing the severity of the illness and the need for time away from work. This would also reduce the out-of-pocket expenses for patients, reducing the overall financial burden associated with accessing care.

This project provided additional support that barriers to accessing care are multifactorial. The barriers identified in rural settings are like those in other areas but compounded by patient demographics and geographic isolation. Despite the availability of after-hours clinic appointments at one site, ED use for nonemergent care was consistent between sites. Inadequate number of providers to meet the needs of the patient population was identified at both sites and impacted the ability to offer same-day appointments. Process changes that reduce access to care barriers promote patient-focused care, increased patient input and responsibility for their health, and increased quality and continuity of care. Patients may also see a reduction in costs associated with added diagnostic testing and greater copays for ED care. Patients with chronic health conditions benefit through case management and regular follow up that reduces acute exacerbations and the need for hospitalization. Care delivered in the appropriate clinical setting promotes teamwork and includes the patient and/or family members, providers, nurses, pharmacists, and other disciplines based on the patients need. Recommendations made based on the findings include open access scheduling, modified staff scheduling, a dedicated case manager, and use of alternative modalities for the delivery of care.

The findings of this study reinforced that barriers to accessing care are multifactorial. In order to obtain high-quality care, individuals must first gain entry into the health care system. This includes having health insurance, a usual source of care, the ability to seek and obtain care when a need is identified, and a supporting infrastructure. Americans experience variable access to care based on race, ethnicity, socioeconomic status, age, sex, disability status, sexual orientation, and place of residence (Agency for Healthcare Quality and Research, 2015a; Conklin, 2002; Fox & Shaw, 2014). The Agency for Healthcare Research and Quality (2015) report identified access to care was one of the 10 quality indicators. The concept of access was further clarified to reflect the importance of patients having a medical home. This has been shown to improve patient outcomes through early interventions for acute illness, chronic care follow up, and participation in preventative care. Implementation of the recommendations made to increase access would require an organizational and management commitment to change. Modifications to clinic hours, staffing, and scheduling could potentially reduce the number of patients seen during the implementation process. By obtaining input from staff and patients and clearly articulating the benefits of the change to all stakeholders, resistance to the changes could be mitigated.

Unexpected Findings

An initial assumption was that by providing same-day appointments and extended clinic hours, patients would be able to avoid the use of costly EDs for nonemergent problems. The finding of this project did not substantiate this. One site did provide limited same-day appointments and expanded clinic hours 4 days a week, but the

percentage of nonemergent ED visits during clinic hours was still greater than the site with traditional scheduling. Peak ED use was from 10 a.m. to 11 a.m., noon to 1 p.m., and 4 p.m. to 5 p.m., all times when the clinics were open. This reinforced the need to assess the needs of the community and identify process changes that address these. The project recommendation of a dedicated case manager would provide a means to evaluate the underlying factors that motivate patients to seek care in the ED instead of the clinic.

Recommendations

This project was able to identify factors that contribute to barriers to accessing care in rural communities. Based on input from the CAHs and RHCs, the barriers identified were inadequate number of providers to meet the needs of the patient population and lack of care coordination. The recommended changes were based on input from all of the stakeholders, benefit all that would be impacted, and are supported by prior studies.

Recommendations include reassessment of patient demographics to identify patient service needs and build a scheduling template that reflects these needs. This would include appointments over the noon hour and extending the clinic day to 6 p.m. to capture patients being seen in the ED during two of the peak use periods. By looking at peak demand times, staffing could be staggered to increase the number available during these times. Open access scheduling is a process shown to increase a patient's ability to obtain an appointment with their primary care provider when needed (Agency for Healthcare Research and Quality, 2015b). This process is patient-centered and allows patients to see the provider of their choice in what they consider a reasonable time frame.

The result is increased continuity of care, better health care, and improved patient satisfaction. The benefit to practices includes reduction in the number of no-show appointments and increased clinical efficiency, resulting in greater revenue generation (Agency for Healthcare Research and Quality, 2015b; O'Hare & Corlett, 2004; Rose, Ross, & Horwitz, 2011). This could initially be implemented 2 days a week on high volume days and increased as needed. A dedicated case manager would increase continuity of care by providing phone follow up to patients seen in other facilities and scheduling follow-up appointments. Regular phone follow up of patients with chronic health conditions would facilitate continuity of care and improve adherence to treatment plans for both acute and chronic conditions. The case manager would also serve as a liaison with other health service providers with the goal of improved communication and coordination of services to ensure identified patient care needs are being met.

The final recommendation is increased use of technology. The implementation of telehealth visits, direct patient scheduling, electronic appointment reminders, and computer alerts for clinic staff would increase access to care. Programs that monitor patients in the home can be set up that provide patient information at scheduled intervals to identify problems early, make treatment changes, and avoid hospitalization. A patient with congestive heart failure could be monitored through daily assessments of weight, blood pressure, heart rate, and symptom status. Diabetics can be effectively monitored for home glucose results, dietary counseling, and medication adjustments. Home-bound patients can have direct contact with their primary care provider that is facilitated by a caregiver or independently based on level of function. Telehealth visits can be used to

evaluate new health concerns or follow up on a chronic health conditions, avoiding the need to travel to the clinic.

The recommendations focus on the needs of the patient but also benefit the staff and the organization. Greater scheduling flexibility reduces double booking and allows appointments to be scheduled that reflect the complexity of the patient seen, resulting in greater provider satisfaction. The ability to capture lost visits increases clinic revenues and encourages appropriate utilization of health resources.

Discussion of Findings in the Context of Literature and Framework

The findings of this project reinforce that the inability to access primary care services within the local community is multifactorial. That barriers faced by individual's in rural settings are like those in urban areas but exacerbated by an inadequate number of providers, geographic isolation and an aging patient population. Delays in seeking care or use of alternative sources of care are mechanism used when patients found themselves unable to schedule an appointment with their primary care provider. Use of local EDs for nonemergent care was documented during regular clinic hours. This was found even when extended hours were provided. Limited number of same-day clinic appointments at times when patients identified a need for care was found to be a barrier. This was associated with an inadequate number of providers to meet the needs of the patient population. The higher percentage of elderly with multiple chronic health conditions placed increased demand on provider time, limiting the number of same-day appointments. Data revealed the age group 2 to 10 years had the highest number of

nonemergent ED visits during normal clinic hours reinforcing the need for a greater number of same-day appointments.

Continuity of care is impacted when it is necessary for patients to seek care outside their medical home. Communication between health service providers is critical to maintain quality and increase continuity but was inconsistently provided. Use of a dedicated case manager would increase communication between health service providers and promote patient follow up. Barriers to accessing care also restrict a patient's ability to schedule preventative services and appointments to manage chronic health conditions. The end result is patients are sicker when initially diagnosed, requiring more aggressive interventions and increased utilization of health resources.

Implications

Policy

The United States spends more annually on health care but continues to trail ten other wealthy countries due to cost-related access barriers, sicker and more economically disadvantaged adults (Osborn, Squires, Doty, Sarnak, & Schneider, 2016). Despite the implementation of the ACA, it is estimated that 23 million adults lack health insurance. Provisions in the ACA have the potential to improve health and health care but will require decades of commitment to achieve. Policy must be crafted that addresses the goal of the Institute of Medicine (2001) to provide safe, effective, patient-centered, timely, efficient and equitable care for all Americans. Policy crafted with input from patients, providers, health organizations and insurance providers is necessary to obtain commitment to the changes. It is essential to clearly articulate the goal of improved

quality in addition to cost containment. Processes must be in place that reinforce appropriate utilization of resources by consumers and incentives to clinics that provide extended hours, case management services and demonstrate a practice model based on community needs. The skyrocketing cost of health care, inequities in access to health care services and aging demographics are factors that are driving the need for change. Based on reports by the Institute of Medicine and Affordable Care legislation, access to care is a social issue that would be perceived as a high priority.

Practice

The American Nurses Association (2016) defines nursing as the protection, promotion, and optimization of health and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, groups, communities, and populations. Nurses are often the initial point of contact for patients when accessing health services and as such, it is essential to understand what barriers are present that impact a patient's ability to access care. Knowledge of the needs of the population being served allows health service providers to be more responsive at meeting these needs. Through a patient-centered focus, nurses can address the underlying factors that motivate patients and impact their utilization of health services. The project identified process changes that have the potential to improve patient access to care. Nurses, as patient advocates, are well positioned to initiate changes that have the potential to improve the quality of life of patients.

Traditional practice models no longer meet the needs of communities. As the population ages and work commutes lengthen there is need to evaluate practice patterns. A paradigm shift that transitions from the focus on clinic needs to patient's needs is essential to meet the needs of the population being served. To increase access in rural areas, clinic scheduling and staffing should be based on the needs of the patient population and of the community being served. This requires organizational support for resources and process changes. Two options that could be utilized would be open scheduling to increase the availability of same-day appointments and flexible practice schedules to provide appointments over peak demand time. This would require organizational/system support for the process changes. The use of alternative means for delivering care (e.g. telehealth), and technology to monitor patients with chronic health conditions has the potential to improve access.

Research

This project provided additional support to current knowledge on barriers to accessing care in local communities. It highlighted the additional barriers faced by rural communities associated with limited number of providers to meet the needs of an increasingly elderly population. Further topics for research that could further clarify access to care barriers would include assessment of patient perception of barriers, evaluate insurance data (e.g. diagnostic codes submitted), availability and impact of community based care, and transportation resources in rural areas. Each of these topics would contribute to the body of knowledge on barriers to accessing care and provide support for process changes to reduce barriers.

Social Change

The data obtained through this project highlights the impact of inability to access primary care services in the local community. Those disproportionally impacted are the low income and elderly due to lack of health insurance, financial barriers or inability to participate in services that are available. The goal is to provide safe, effective, patient-centered, timely, efficient and equitable care for all Americans. Providers of health services must be responsive to needs of community while supporting the goals of the organization. Stakeholders include not only the ones identified in this project but also health insurance providers, state and federal governments as well as the patients accessing services. All need to be held accountable for improve quality, access and appropriate utilization of our health resources.

Project Strengths and Limitations

The projects greatest strength was its relevance to what is currently a critical issue in the United States, the declining health status of its citizens. An estimated $9,523 per person is spent per year on medical expenses with health spending that tops $3 trillion a year. Despite this, 43% of low- income individuals went without medical care due to costs in 2015 (Osborn et al., 2016). The National Institute of Health and Institutes of Medicine, as divisions of the U.S. Department of Health and Human Services, continually monitor, evaluate and make recommendations and ways to improve the health of all Americans. To achieve health equity and increase quality of life, we need to ensure that all have access to quality health care services. Despite the implementation of the ACA, 13.3% of persons under the age of 65 do not have health insurance and 23.5% were

without a usual primary care provider (Healthy People 2020, 2016b). The State of Iowa participated in the Medicaid expansion program and as a result only 5% of individuals under the age of 65 are without health insurance coverage yet 27% do not identify a usual primary care provider (Iowa Department of Public Health, 2016).

A second strength identified was the input from the clinic staff on processes that were in place to increase access and what they perceived as the greatest barriers. The responses on the questionnaire consistently identified an inadequate number of providers to meet the needs of the population being served. With the ACA goals of patient-centered medical homes, improved quality and care coordination, processes need to be in place that facilitate the achievement of these goals. As the country moves from a volume based system for reimbursement to value based, access becomes a key issue. Currently an estimated 30% of Medicare payments are tied to payment models that reward quality and coordination of care. Reimbursement is based on the health of the patient and quality of care provided (U.S. Department of Health & Human Services, 2016). With Iowa's 15.6% elderly population, failure to comply with the ACA goals will impact revenue generation in these clinics.

One of the limitations identified early in the data gathering phase of the project was the in ability to consistently attribute ED visits to specific clinic or provider. This was due to the patient failing to list a primary care provider (PCP) or identifying they did not have one. As a result, the findings can only be generalized and are not clinic specific. When there is no PCP identified, the opportunity for case management or follow up care is eliminated unless initiated by the patient. An additional limitation was lack of input

from patients. To obtain a more complete picture of access to care barriers, this information is needed. Due to the limited amount of time to complete the project, the decision was made to focus on input from health services providers. The Community Health Needs Assessment completed by each of the CAHs did provide some insight into what members of the communities believed were barriers to accessing health care within the community.

Recommendations for Remediation of Limitations

Activities that would aide in remediation of the above noted limitations and in future work would include working with the ED staff to ensure that reports identified a PCP or that a source of follow up care was identified before the patient is discharged. The identified provider would then be notified of the patient visit and recommended follow up, allowing for appropriate case management. Input from patients regarding their decision to go to the ED could be included in the ED documents. Two simple questions would increase our understanding of what patients perceive as barriers. The first would be to identify if they attempted to schedule an appointment with their PCP and second, what factors contributed to their decision to seek care in the ED. A list of options could include no appointments, no appointments available when I could be there, too sick to wait to be seen, and convenience. To address generalization of the findings, statewide data is gathered by the Iowa Hospital Association on utilization and could be analyzed for Level 1 and 2 ED visits in other rural hospitals. The purpose would be to look for patterns of use similar to the hospitals that participated in the project.

Analysis of Self

This project provided opportunities to increase my knowledge as a practitioner and project developer. I have participated in research projects throughout my nursing career but never as the initial project developer. The opportunity to complete all of the steps involved with project development and completion provided me with the skills to undertake future studies. The information obtained from this project provides support for the need for additional studies addressing barriers to accessing care. Self-analysis has provided insight into areas of strengths, weakness, and potential directions for future topic development.

Evaluation of Scholarly Growth

As a scholar, I was able to research an issue that provided me with the opportunity to evaluate care delivery approaches that meet current and future needs of a specific patient population. Recommendations that were made for quality improvement and systems change were based on evidence based findings from accepted health science resources. The experience emphasized the importance of a well-chosen topic with a narrow focus that is meaningful to practice. Failure to clearly articulate the concept being studied could result in difficulty achieving the goals of the project. As a nurse scholar, life-long learning is essential to develop and maintain the skills necessary to meet the needs of a diverse and continually changing population. The ability to identify evidence based resources and implement process changes based on these studies increases the effectiveness of nursing care. One of the frustrations with my project was the limited amount of time for the project. Barriers to accessing care stem from multiple factors but

due to the duration of the project I was only able to address a very small part of the subject. There is potential for ongoing evaluation and assessment that would provide further insight into other factors that influence accessing care.

Evaluation of Practitioner Growth

As practitioner, this project reinforced my belief that there is need for constant questioning and queries to ensure that the best available care is being provided for our patients. This requires openness to new ideas and the ability to access a wide range of resources while addressing the needs of patients, communities and organizations. It increased my scope of knowledge regarding the multiple factors that impact a patient's ability to access care in their local community. The impact of politics on health care in the United States reinforced the need for practitioners to be actively involved in professional organizations that advocate for quality, equitable care for all.

Evaluation as Project Developer

As a project developer I believe a team approach works best and provides different perspectives and insight in all phases of a project. As the individual solely responsible for this project, I look back now and see that input from my preceptor served to keep me focused and moving forward during the project proposal phase. Loss of that resource once the preceptor experience was completed resulted in some indecision. I questioned if there had been adequate analysis of the issue, if my supporting data was current enough to be relevant, or if the write up accurately reflected the finding in a manner that was meaningful. This would not have been an issue had I been part of a team with unifying goals, identified roles and a clearly identified plan for project completion.

An additional challenge was that the project sites were outside my normal work setting making the need for frequent e-mail and phone follow up essential. Site staff that performed the task in addition to their normal duties gathered data. The potential for delay in data retrieval was a concern. This would have been less of an issue if there had been a working relationship with the sites. The length of time from approval of the project to implementation resulted in the need to repeat site visits to ensure no additional questions regarded the data requested had been identified. During this time there was a change in clinic administration at one site and follow up with the regional administrator was required to obtain consent for participation.

Future Professional Development Related to Project

As a health care professional, I plan to continue to explore opportunities for participation in ongoing or new research that serves to expand our nursing knowledge base. As a member of several professional organizations there are numerous opportunities to participate in projects that focus on access to care, utilization of resources, and patient and provider education. Participation in community health and wellness events will provide opportunities to interact with other health services providers and identify unmet needs within the community.

Summary and Conclusions

As a retrospective review, the goal of the project was to analyze specific data, looking for patterns or trends associated with accessing primary care within two rural communities. Data were gathered from two CHAs and two RHCs in northeast Iowa and analyzed looking at nonemergent ED use during regular clinic hours. Analysis of the data

revealed peak ED use from 10 to 11 a.m., noon to 1 p.m. and 4 to 5 p.m., all times when the clinics are open or could be open. An anonymous, voluntary questionnaire was completed by clinic staff to obtain input on perceived barriers to patients accessing care in the clinic. The questionnaire addressed quality indicators such as timeliness in obtaining appointments, coordination of care, case management and provided an opportunity for additional comments. This provided input from the staff perspective providing additional insight into perceived barriers. Lack of same-day appointments and insufficient number of providers to meet the needs of the patient population were the two key barriers identified. To better understand the decision to seek nonemergent care in the ED, additional studies with input from patients would provide further insight.

The strength of the project was its relevance to health policy and potential reimburses issues, increasing willingness to participate. Since project completion, one CAH has opened a limited urgent care in its ED to reduce nonemergent ED visits and one clinic site has established a process for patients to be seen on the same day at affiliated clinics. Both of these changes increase the opportunity for same-day nonemergent appointments but do not address care in a patient centered medical home. A process to inform primary care providers of the visit findings, treatment and need for follow up care would aide in continuity of care.

The findings of the project highlighted barriers common in rural communities. Inadequate number of providers to meet the need of an elderly population results in limited ability to be seen based on a patients perceived need. The end result is ED visits for nonemergent care or delaying care. The project did not gather information from

patients, which would have provided additional insight into the care decision making process. This would be particularly useful at the clinic site that provided expanded hours yet continued to have high Level 1 and Level 2 ED visits. The inability to consistently identify an ED patient's primary care provider allows the project findings to be generalized but not specific to clinics that participated in the project.

The key to process change and process improvement is dissemination of the findings of a study. The data analysis and any recommendations were made and needed to be presented in a manner that is meaningful to the individuals or groups involved. The dissemination of the project findings began once the data was gathered and analyzed. A summary report was presented in the format of a power point presentation to the Center for Rural Health and Primary Care Advisory Committee, Iowa Rural Health Association Board and the Bureau of Oral and Health Delivery Systems at the Iowa Department of Public Health (Appendix B). The Summary and Evaluation Report will be shared with the Chief Nursing Executive of the CAHs and clinic administrator of the RHCs.

This project reinforced that barriers to accessing care in rural Iowa exist and are compounded by an inadequate number of providers to meet the needs of the community. Additional studies that include input from patients, insurance providers and health system administrations would provide further insight and support process changes that facilitate the provision of quality, patient-center care in the appropriate setting. This becomes even more important in the current fiscal environment where reimbursement is based on quality and value with the goal of improving the health of patients while making the best use of resources.

Section 5: Scholarly Product

Project Summary and Evaluation Report

Access to Care: Assessment of Barriers in Two Rural Iowa Communities

Jean M. Osgood

Walden University

The DNP project was completed as partial fulfillment of the requirements for the degree of Doctor of Nursing Practice. The purpose of the project was to identify barriers specific to accessing care in local communities for rural Iowans and make recommendation that promote cost-effective, sustainable process changes to increase access. Known barriers include lack of or under insured, insufficient number of health care providers in local communities, lack of transportation, and work or family conflicts. Iowa continues to have a 5% uninsured rate (Gallup, 2015) resulting in estimated 155,356 individuals who are uninsured. This does not take into consideration the number of underinsured who delay seeking care due to cost. Iowa's rural demographics (41%) and 65 or older (15.6 %) population creates unique transportation challenges to accessing care. Sixty-six of Iowa's 99 counties are health professional shortage areas (HPSA). All but four counties have some type of classification as having a medically underserved population or area, a HPSA or Governor's shortage designation (Figure 1). Work or family conflict creates barriers when an individual works outside of the community and needs to take time off of work to access services for either themselves or family members

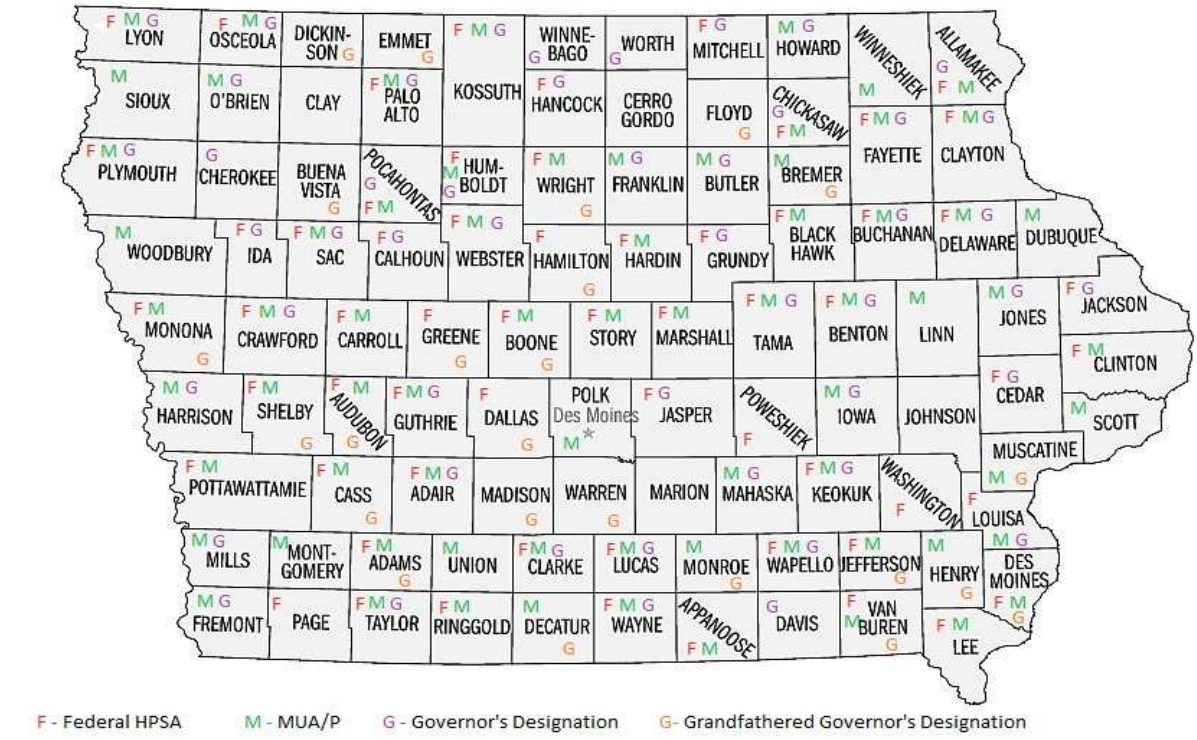

Figure 1. Health Professional Shortage Areas

Retrospective data was gathered from two critical access hospitals (CAH) and two rural health clinics (RHC) in Northeastern Iowa. The CAH data included results of their community health needs assessment (CHNA), Level 1 and Level 2 emergency room (ED) visits, date and time of visits, age of patients and primary diagnosis. RHC data included clinic hours, number of providers, number of active patients, number of patients age 0-17 years, 18-64 years and 65 or older, number of patient visits and no-shows in a 3 month period. In addition, a survey was conducted with RHC staff on availability of 24/7 telephone triage, same day appointments, and case management for no-shows, ED visits, urgent care visits (Appendix A).

The information gathered from the CHNAs revealed that both sites identified access to health care (providers, transportation and insurance), chronic disease management (cardiovascular disease and diabetes), and disease prevention and wellness (obesity, tobacco and alcohol) as unmet health care needs of their community. Of the total Level 1 and Level 2 ED visits, 27% were during normal clinic hours at Site A and 39% for Site B (*Figure 2.*). This is contrary to what would be expected since Site B had extended clinic hours. Peak ED use at both sites were from 10-11 a.m., 12-1 p.m. and 4-5 p.m.

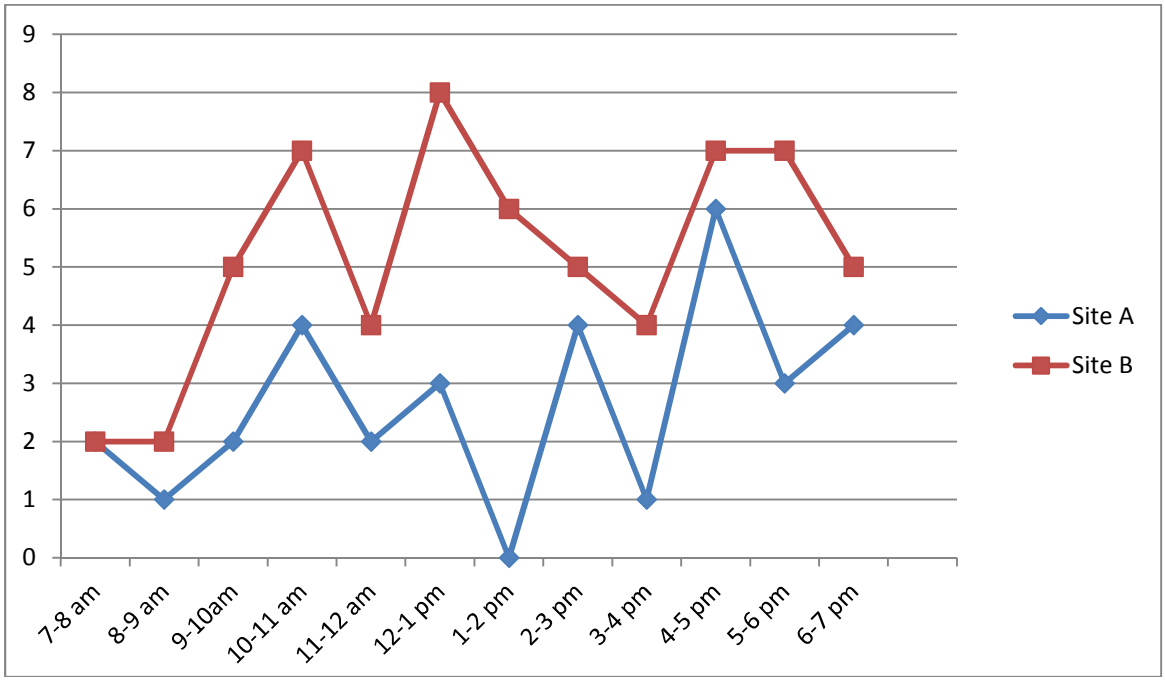

Figure 2. ED use during clinic hours.

Analysis of the RHC data revealed that there was an average of 500 active patients per provider, 1,000 visits per provider during the 3month period and a 3 to 4 % no-show rate. The number of patients age birth to 17 at Site A was 21% and Site B 24% (U.S. 24%), ages 18 to 61 was 50% and 51% (U.S. 63%), and patients 65 or older was 29 % and 25% (U.S. 13%). Figure 3 compares the patient demographics between the two

clinics and the U.S.

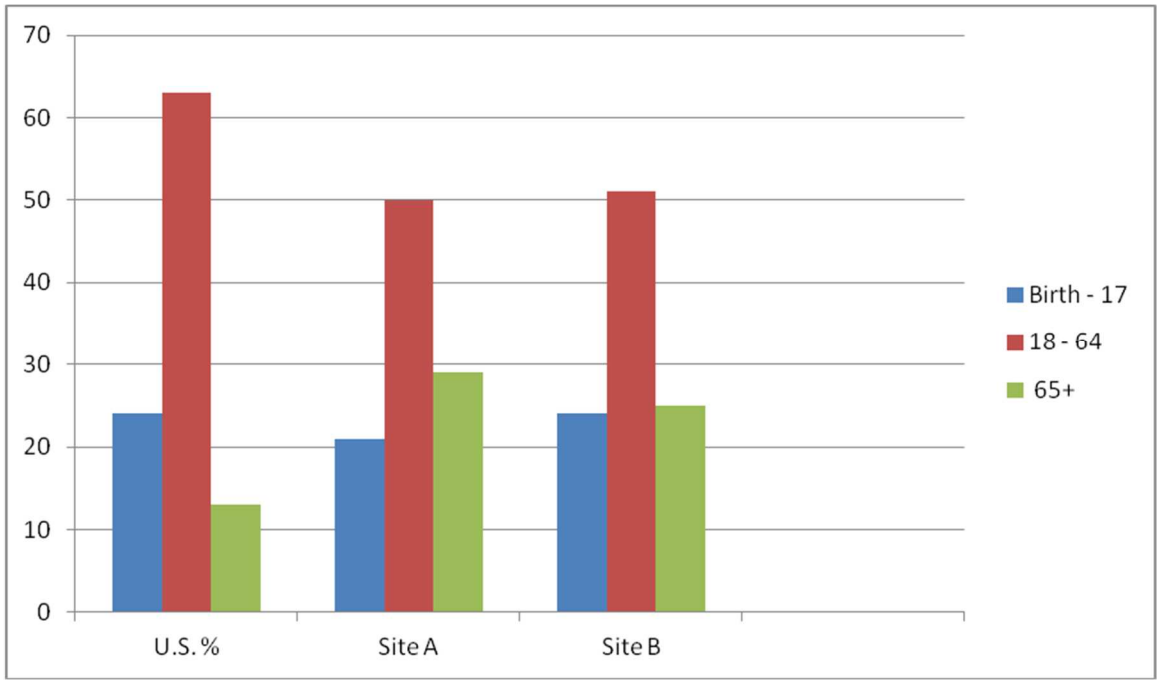

Figure 3. Clinic patient demographics

The questionnaire was completed by 85% of the employees at Site A and 79% at Site B. Each site identified that there was 24/7 nurse triage available but inconsistent communication with the clinic when their patients called as well as inconsistent notification of ED or urgent care visits. Both sites had a case management process in place; there were same day appointments and follow up on clinic no-shows. Specific barriers to patients scheduling appointments included inadequate number of providers, not enough same day appointments, and a large number of patients with chronic health problems limiting time for acute minor illness appointments. Additional comments addressed transportation barriers due to age and income, and the need for patient education on acute minor illness and chronic care management.

Recommendations made based on data and input from clinic staff include changes in the schedule template to reflect the need for longer appointments to address chronic health conditions, open access scheduling to increase the number of same day appointments, and look at clinic staffing patterns and concentrate resources at peak ED use times. The use of a dedicated case manager would increase continuity of care providing follow up on ED, urgent care, and no-shows visits. It would also provide a mechanism to manage patients with chronic health conditions and promote the use of preventative services. This individual could also serve as a liaison with other health services, increasing communication and coordination of services. This would focus care on the needs of the patient and the community. The use of health information technology would increase the ability to share information, coordinate care and provide patient follow up. Electronic medical records can be set up to alert the case manager of the need for follow up appointments and support interdisciplinary collaboration. The use of e-mail or text messaging to contact or communicate with patients or designated family members would increase opportunities to provide follow up. By providing a variety of options for patients to access primary care services, the expectation would be improved compliance with the plan of care, increased follow up on chronic health conditions and use of preventative service.

The goal of the project was to assess barriers to accessing care in two rural Iowa communities and then identify process changes that could be implemented to reduce these barriers. Analysis of the data gathered revealed several contributing factors with the greatest barriers being inadequate number of providers to meet the needs of the patient

population. The recommendations made addressed scheduling and staffing changes that would improve efficiency and utilization of their current resources. The recommendations made were cost- effective and sustainable and could be implemented one at a time or all at the same time. The decision to proceed with any process changes is that of the project participants. The purpose of this project was identifying barriers and make evidence-based recommendations that could reduce them.

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Appendix A: Access to Care Questionnaire

Jean M. Osgood Site A / Site B

Please complete the following questions then fold and place this form in the envelope provided and return to the investigator.

1. Does the clinic have 24/7 telephone nursing triage services? Yes____ No____
   If Yes, does the clinic receive notification of patient calls? Yes____ No____

2. Are there appointments open each day to schedule same day/acute minor illness visits?
   Yes____ No____
3. When clinic patients are seen at Urgent Care (UC), Convenient Care (CC) or the emergency department(ED), is the clinic notified of the visit? Yes____ No____

4. Is there a case management process in place to follow up on UC, CC, or ED visits?

   Yes____ No____

5. Is there a case management process in place to follow up on clinic "no-shows"?

   Yes____ No____

6. What do you see as an obstacle or barrier to patient's being able to schedule an appointment with a primary care provider in the clinic?

7. Please add any additional comments you feel would provide insight on barriers to accessing care for rural Iowans.

Thank You

Appendix B: Access to Care PowerPoint Presentation Outline

Slide 1 **ACCESS TO CARE: ASSESSMENT OF BARRIERS IN TWO RURAL IOWA COMMUNITIES**

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Slide 2 **Project Purpose and Objectives**

- Identify barriers specific to accessing care in local communities for rural Iowans and make recommendations that promote cost effective, sustainable process changes that can increase access to clinic services
- The target population has an identified primary care provider within their community and a process in place to access these services 24/7
- Health care providers can identify and implement at least one process change that can increase access to clinic services
- Complete a cost-benefit analysis related to increased access
- Disseminate findings to key stakeholders

Slide 3 **Known Barriers**

- Health insurance – lack of or under insured. 5% of Iowans remain uninsured (Witter, 2015)
- Insufficient number of health care providers in local communities – 86 of Iowa's 99 counties are designated as HPSA or MUA/MUPs (HRSA Data Warehouse, 2015)
- Lack of transportation – rural demographics, limited public transportation, larger % of elderly who are potentially unable to drive
- Work or family conflicts – work outside of local community, time off for appointments, care for small children or elderly parents

Slide 4 **Iowa HPSAs/MUA/MUPs/Governors Designation**

- Iowa Map(Figure 1)

Slide 5 **Project Participants and Data Collection**

- Critical Access Hospitals – center of health services for the community. Review of most recent Community Health Needs Assessment to identify unmet health care needs within the community. Level 1 and 2 emergency room visits. Date, time, patient age, diagnosis and type of health insurance
- Rural Health Clinics – selected clinics identified by CAHs. Frequent users of ED services. Clinic – hours, number of providers, number of active patients, number of patients age 0-17/17-64/65 or older, number of patient visits, number of no-show appointments. Availability of 24/7 telephone triage, same day appointments, case management for no-shows/ED or urgent care visits.

Slide 6 **Data Summary/Findings**
CAHs CHNA findings

- Site A – access to health care(transportation, insurance), chronic disease management(diabetes, heart disease, high blood pressure), disease prevention and wellness(nutrition, tobacco, obesity)
- Site B – access to health care(providers, transportation, insurance), chronic disease management(heart disease, stroke, diabetes), disease prevention and wellness(obesity, alcohol, tobacco)

Slide 7 **Data Summary/Findings cont.**
CAHs ED visits Level 1 and Level 2

- Site A – Total 85 visits, 23 visits during clinic hours(27%)
- Site B – Total 159 visits, 62 visits during clinic hours(39%)

Slide 8 **Data Summary/Findings cont**

RHCs	Site A	Site B
• Active patients	1505	1964
• Patient visits	2828	4262
• No-shows	151(5%)	175(4%)
• Hours per week	42	52
• Average number	2.5(3)	3.5(4)
o Providers per day		

Slide 9 **Data Summary/Findings cont**
RHC patient demographics(Figure 3)

Slide 10 **Data Summary/Findings cont**
Questionnaire Responses

Site A – 13 distributed, 11 returned

- 10 identified there was 24/7 nurse triage but only 5 indicated clinic received notification of the calls with 1 sometimes response
- 11 indicated there were same day appointments available each day
- Notification of ED or UC visits – 3 yes, 2 no, 6 sometimes
- Case management process in place – 8 yes, 1 no, 1 sometimes
- Follow up on clinic "no-shows" – 10 yes, 1 no
- Barriers – need more providers (5), # of chronic visits limits time available for acute minor illness (6), work/transportation (1), new patients/increased # of patients (3)
- Additional comments – need more providers, patient education on what is urgent and needs to be seen right away/compliance with care, patients want visits that are convenient for them

Slide 11 **Data Summary/Findings cont**
Questionnaire Responses

Site B – 14 distributed, 10 returned

- 9 identified there was 24/7 nurse triage but only 5 indicated clinic received notification of the calls with 1 sometimes response
- 10 indicated there were same day appointments available each day
- Notification of ED or UC visits – 3 yes, 4 no, 3 sometimes
- Case management process in place – 4 yes. 6 no
- Follow up on clinic "no-shows" – 8 yes, 2 no
- Barriers – need more same day appointments(8), not enough openings(3), need more providers(1)
- Additional comments – would be nice to have an urgent care in town/transportation issues, patient education on medication refills, follow up appointments and referrals, provider schedules are usually full 2 weeks out and patients get upset about that, need for transportation and care coordination

Slide 12 **Key Issues Identified**

- Inadequate number of providers to serve population
- Increased number of elderly patients with multiple health problems that require more of the providers time
- Transportation issues both for the elderly who do not drive and low income with only 1 vehicle
- Lack of consistent communication between triage, ED, urgent care facilities to allow for case management/patient follow up
- Convenience in scheduling appointments
- More appointments for chronic care, routine appointments
- Need for local urgent care services

Slide 13 **Recommendations**

- Scheduling changes – template based on needs of patient population, open access scheduling
- Clinic hours
- Staffing patterns
- Dedicated case manager
- Improve communication between health service providers

Slide 14 **Strengths and Limitations**

- Relevance
- Input from multiple stakeholders
- Identified processes that were cost effective and sustainable
- Has the potential to increase access to care
- Findings can serve as a basis for further studies
- Lack of input from patients
- ED data – PCP for patients not identified and at 1 site there were 2 EDs in the area. Unable to capture all Level 1 & 2 visits

Slide 15 **References**

- Agency for Healthcare Research and Quality (2015). *2014 National Healthcare Quality and Disparities Report: Report on Access to Health Care.*
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- Gallup-Healthways Well-Being Index (2015). *Americans Now Have Health Insurance.*
- O'Hare, C.D. & Corlett, J. (2004). The outcomes of open-access scheduling. *Family Practice Management, 11*(2), 35-38.

Slide 16 **Questions?**